



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,728	08/09/2002	Robert J. Miller	56162.000348	4237

21967 7590 06/10/2005

HUNTON & WILLIAMS LLP  
INTELLECTUAL PROPERTY DEPARTMENT  
1900 K STREET, N.W.  
SUITE 1200  
WASHINGTON, DC 20006-1109

EXAMINER

MEUCCI, MICHAEL D

ART UNIT PAPER NUMBER

2142

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/064,728

Applicant(s)

MILLER, ROBERT J.

Examiner

Michael D. Meucci

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 August 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/28/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 7-11, and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al. (U.S. 2001/0030950 A1) hereinafter referred to as Chen, in view of Digiacomo et al. (U.S. 6,301,667 B1) hereinafter referred to as Digiacomo.

a. As per claims 1 and 8, Chen teaches: at least one computer network service provider (paragraph [0003] on page 1); a customer premises equipment device operatively connected to the at least one service provider over the computer network; and a computer operatively connected to the customer premises equipment device, wherein the customer premises equipment device includes a broadband modem and an analog modem (paragraph [0037] on page 2 and paragraph [0063] on pages 4-5); and wherein the at least one service provider may configure the customer premises equipment device by exchanging information with the analog modem (paragraph [0063] on pages 4-5).

Chen does not explicitly disclose: the service provider monitoring the customer premises equipment. However, Digiacomo discloses: "The benefit of this extension is that the ISP can better monitor the condition of the ISP network extending as far into the

customer premises as the high speed transport medium which is owned by the ISP," (lines 47-50 of column 2).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the service provider monitor the customer premises equipment. "By extending the network management functions, the ISP can better monitor the condition of, for example, the cable modem or xDSL modem," (lines 50-53 of column 2 in Digiacomo). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the service provider monitor the customer premises equipment in the system as taught by Chen.

b. As per claims 2 and 9, Chen teaches: the at least one service provider includes each of a terminating service provider and an intermediate service provider operatively connected to the terminating service provider over a computer network, and wherein the customer premises equipment device is operatively connected to the intermediate service provider (paragraph [0069] on page 5 and Fig. 5).

Digiacomo further supports these limitations as well and discloses: "As shown in FIG. 2, the access CPE 400 and the network 100 are connected and communicate with each other using two paths, i.e., one path providing broadband access through the broadband transport medium, broadband PoP 440 and access router 450 and the other path through the public switched telephone network 430 and the POTS PoP 460," (lines 16-21 in column 3).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the at least one service provider include each of a

terminating service provider and an intermediate service provider operatively connected to the terminating service provider over a computer network, and wherein the customer premises equipment device is operatively connected to the intermediate service provider. "This dual-path architecture provides improved Internet access because, for example, a PC 500 can send information to the Internet, i.e., up-stream, using the POTS PoP 460 and receive information from the Internet, i.e., down-stream, using the broadband PoP 440 path. Therefore, this dual-path architecture allows a PC 500 to send the relatively small amount of information required to access the Internet along the POTS PoP 460 path and receive significantly larger amounts of information, e.g., during down loading of information from the Internet, using the broadband PoP 440 path. Thus, the dual-path architecture may provide higher speed surface by utilizing the broadband technology to increase down loading of information," (lines 22-34 in column 3 of Digiacomo). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the at least one service provider include each of a terminating service provider and an intermediate service provider operatively connected to the terminating service provider over a computer network, and wherein the customer premises equipment device is operatively connected to the intermediate service provider in the system as taught by Chen.

c. As per claims 3 and 10, Chen teaches: the terminating service provider is an internet service provider (paragraph [0069] on page 5) and the intermediate service provider is an ADSL service provider (paragraph [0041] on page 3 and paragraph [0049] on page 3 through paragraph [0053] on page 4).

d. As per claims 4 and 11, Chen teaches: the customer premises equipment is an ADSL modem (paragraph [0063] on pages 4-5, paragraphs [0081-0083] on page 6, and Fig. 6A and 6B).

e. As per claims 7 and 14, Chen does not explicitly teach: the account setup and broadband modem configuration information are exchanged between the service provider and the analog modem. However, Digiacomo discloses: "However, the ISP needs to permit access to the NOC 300 by the access CPE 400 during the new customer registration process and the per-call authentication for Internet access. Therefore, the access CPE 400 must be permitted to send information upstream to the NOC 300. However, the PCs 500 must be denied access to the NOC 300 to ensure proper security of the NOC 300. Although it is foreseeable that the ISP may access the NOC 300 by the access CPE 400 along the broadband PoP 400 path, presently, it is more effective for the ISP to access the NOC 300 using the access CPE 400 along any of the POTS PoP 460," (lines 37-54 of column 3).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the account setup and broadband modem configuration information exchanged between the service provider and the analog modem.

"Regardless, because of the dual-path architecture, there is a risk that the customer PCs may gain access to the NOC 300 utilizing the POTS upstream path or the broadband down-stream path to gain access to the Internet through the backbone network 100 and attempt access to the NOC 300 through the Internet. Thus, it is advantageous to provide for communication between the access CPE 400 and the

Art Unit: 2142

NOC 300 but disadvantageous to provide access to the NOC 300 by customer PCs 500 located at the customer premises. Therefore, the ISP needs to implement security measures to protect the NOC 300 from non-authorized communications from the customer PCs 500, i.e., hacking, through both the broadband PoP 440 path and the POTS PoP 460 path," (lines 54-67 of column 3 in Digiacom). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the account setup and broadband modem configuration information exchanged between the service provider and the analog modem in the system as taught by Chen.

3. Claims 5, 6, 12, and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Digiacom as applied to claims 1, 1, 8, and 8 respectively above, and further in view of Dziekan et al. (U.S. 6,728,887 B1) hereinafter referred to as Dziekan.

As per claims 5, 6, 12, and 13, Chen does not explicitly teach: the physical link diagnostic and ADSL information is exchanged between the service provider and the analog modem. However, Dziekan discloses: "As will be discussed in detail below, service providers 103, 105, . . . , 107 interact with manager 100 and are able to provision services, monitor the quality of service, perform diagnostic checks and (under certain, controlled circumstances in accordance with the mediated access arrangement of the present invention) permit direct access to certain network elements," (lines 60-66 of column 3 and Fig. 1) and "Return path monitoring may include, for example,

measurements of BER, lost frames, endless ranging, carrier-to-noise (C/N) ratios, and other measurements that may be made at either the physical or MAC level layers," (lines 49-52 of column 5).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have the physical link diagnostic and ADSL information exchanged between the service provider and the analog modem. "Network elements 102, 104, . . . , 106 utilize various monitoring modules within manager 100 to perform the functions of, among others, downstream monitoring, return monitoring, and topology discovery and management. Although not specifically illustrated in FIG. 1 (for the sake of clarity), it is to be understood that there exist multiple interconnections between the "service"-connected elements and the "network element"-connected modules within manager 100," (line 66 of column 3 through line 7 of column 4 in Dziekan). It is for this reason that one of ordinary skill in the art at the time of the applicant's invention would have been motivated to have the physical link diagnostic and ADSL information exchanged between the service provider and the analog modem in the system as taught by Chen and Digiacomo.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Barton et al. (U.S. 5,343,461) discloses full duplex digital transmission facility loop-back test, diagnostics and maintenance system.



Rybicki et al. (U.S. 5,781,728) discloses flexible ADSL transmitter and remote terminal connectivity.

Henderson et al. (U.S. 6,101,216) discloses splitter-less DSL communication system.

Rajakarunanayake et al. (U.S. 6,286,049 B1) discloses system for providing broadband content to high-speed access subscribers.

Lemieux (U.S. 6,452,942 B1) discloses system for providing wireless local loop access using an access multiplexer.

Yokell et al. (U.S. 6,507,870 B1) discloses XDSL web ordering tool.

Bell (U.S. 6,678,721 B1) discloses system for establishing a point-to-multipoint DSL network.

Farnsworth (U.S. 6,687,232 B1) discloses subscriber loop terminal equipment-resident mechanism for determining bit rate of high-level data link control communication channel.

Vitenberg (U.S. 2003/0051060 A1 and PCT/IL01/00115) discloses multipoint digital subscriber lines with home data network ability.

Holm et al. ("Self-Install ADSL Splitter?") discloses ADSL installation with POTS system.

Faris et al. ("Adieu ISDN – Bonjour ADSL") discloses ADSL installation with POTS system.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Meucci at (571) 272-3892. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia, can be reached at (571) 272-3880. The fax phone number for this Group is (703) 872-9306.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [michael.meucci@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

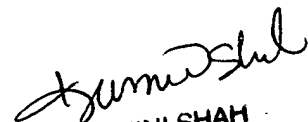
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

Application/Control Number: 10/064,728

Page 10

Art Unit: 2142

have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
KAMINI SHAH  
PRIMARY EXAMINER